

Date: Tuesday, 4/24/2007 3:24:00 PM
User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : DUCT	
Job Number : 32051		
Estimate Number : 12175		
P.O. Number : N/A	Part Number : D34761	
This Issue : 4/24/2007	Drawing Number : D3476 REV A	
Prsht Rev. : NC	Project Number : N/A	
First Issue : N/A	Drawing Revision : A	
Previous Run : 28873	Material : N/A	
	Due Date : 5/8/2007	Qty: 2 Um: Each
Written By :		
Checked & Approved By :		
Comment : Est Rev: A New Issue 06-02-03 JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M304S26GA	304/316 0.018 SHEET
-----	-----------	---------------------



Comment: Qty.: 0.4374 sf(s)/Unit Total : 0.8749 sf(s)
304/316 0.018 SHEET
Batch: M103678 ml 07 04 26

②

2.0	WATER JET	FLOW WATER JET
-----	-----------	----------------



Comment: FLOW WATER JET
Cut as per Dwg D3476
Dwg Rev: A
Prog Rev: A ml 07 04 26

②

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

②

4.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

②

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Deburr if necessary.

2-Roll as per Dwg D3476



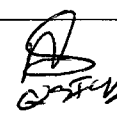
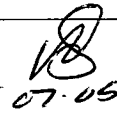
3-Spot weld as per Dwg D3476 and Dart QSI 018

ml 07-04-30

①

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
07-04-30	5	1 scrap because the diameter did fit the blower adapter but not the motor. The diameter of the motor was too big. Did not fit. Adjusted the other duct to fit both (blower & motor) Had to take .050 off of the seam to adjust to fit.	mf.	07-04-30				

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/05/03
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-04-30	5.	1 scrap because diameter fit blower adapter but not motor. The Ø of the motor was too big.		Took .050 off of seam and placed the duct to fit the outside of the blower instead of inside.	mf 07-04-30	 07-05-01	 07-05-01	 07-05-01

NOTE: Date & initial all entries

Date: Tuesday, 4/24/2007 3:24:00 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUCT

Job Number: 32051

Part Number: D34761

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC11

VISUAL INSPECTION OF SPOT WELDING



Comment: VISUAL INSPECTION OF SPOT WELDING

SB 07/05/01 (1)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB 07/05/01 (1)

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: GA

07-05-01

(1)

9.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/05/02

Job Completion



u 07-05-02

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

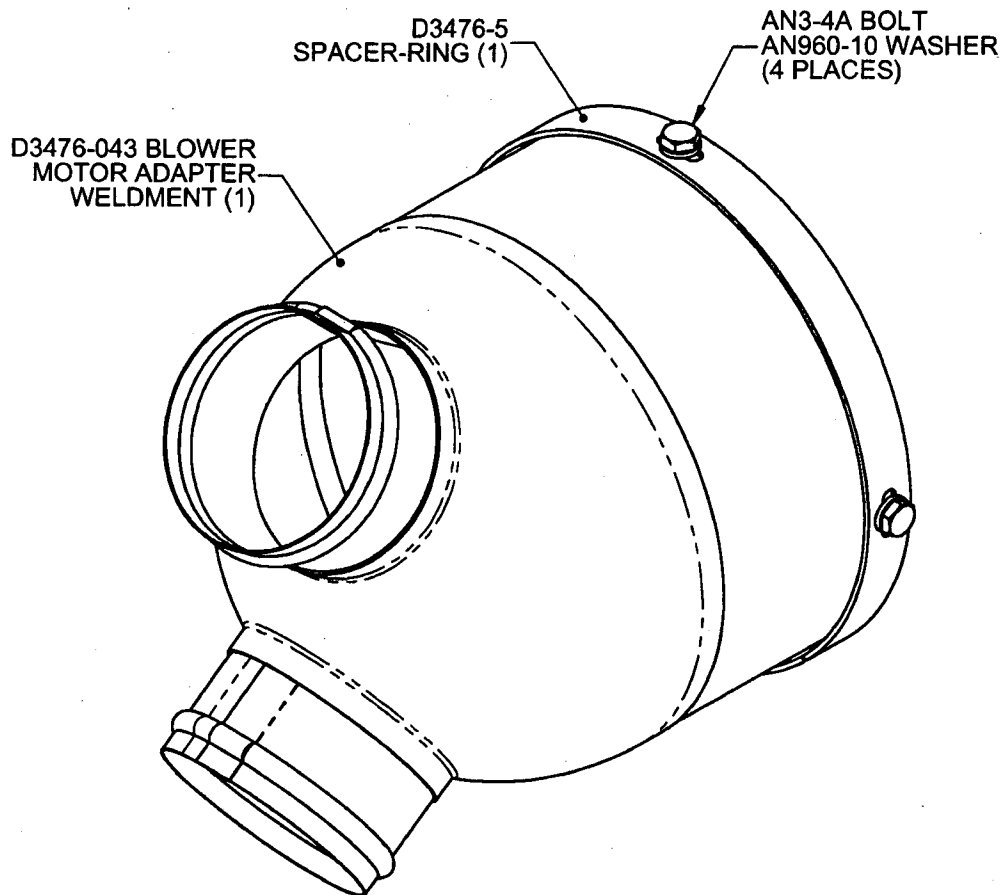
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3476	REV. A SHEET 1 OF 7
DATE 06.01.27		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2
A	06.01.27	NEW ISSUE	

[Signature] 06.04.03



D3476-041 BLOWER MOTOR ADAPTER

1) IDENTIFY WITH DART P/N D3476-041 USING FINE POINT PERMANENT INK MARKER

QTY -041	P/N	DESCRIPTION
X	D3476-041	BLOWER MOTOR ADAPTER
1	D3476-043	BLOWER MOTOR ADAPTER WELDMENT
1	D3476-5	SPACER-RING
4	AN3-4A	BOLT
4	AN960-10	WASHER

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NO. **32051**

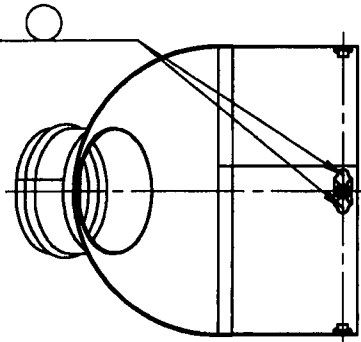
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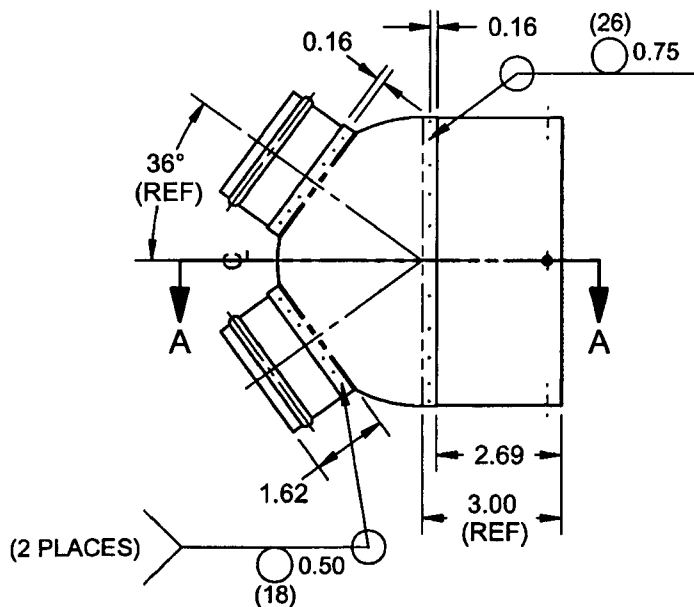
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DESIGN <i>B</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>H</i>	APPROVED <i>H</i>	DRAWING NO. D3476	REV. A SHEET 2 OF 7
DATE 06.01.27		TITLE BLOWER MOTOR ADAPTER	SCALE 1:4

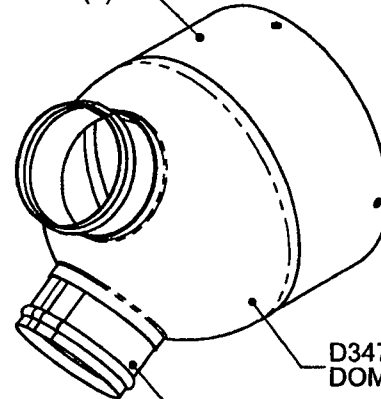
LOCATE AND
SPOT WELD
NUT PLATES
(4 PLACES)



SECTION A-A

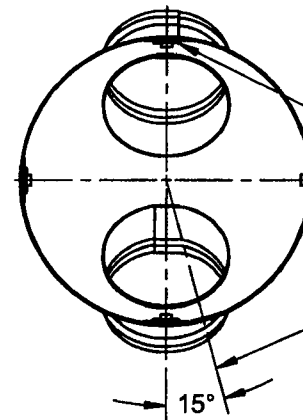


D3476-1
DUCT (1)



D3476-3
DOME (1)

D3476-7 TUBE
(2 PLACES)



NAS-1031C3W
NUT PLATES
(4 PLACES)

OFFSET SEAM
ON DUCT

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**D3476-043 BLOWER MOTOR
ADAPTER WELDMENT**

NOTES:

- 1) SPOT WELD PER DART QSI 004
- 2) FINISH: NONE
- 3) PART IS SYMETRICAL ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -043	P/N	DESCRIPTION
X	D3476-043	BLOWER MOTOR ADAPTER WELDMENT
1	D3476-1	DUCT
1	D3476-3	DOME
2	D3476-7	TUBE
4	NAS1031C3W	NUTPLATE

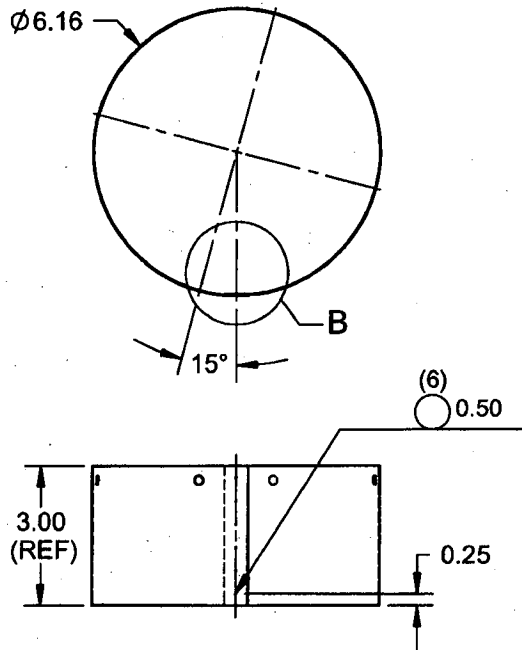
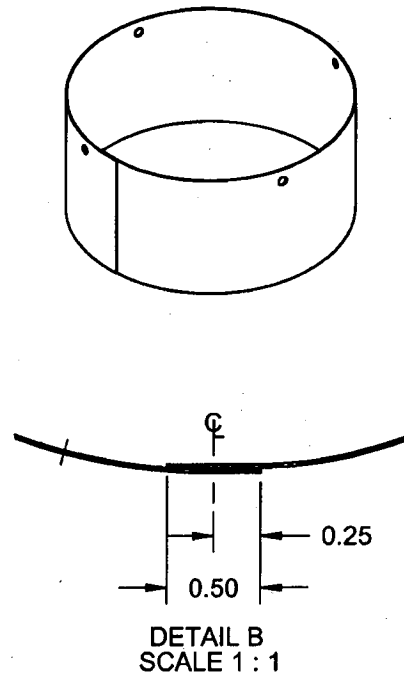
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CHECKED #	APPROVED #	DRAWING NO. D3476	REV. A SHEET 3 OF 7
DATE 06.01.27		TITLE BLOWER MOTOR ADAPTER	SCALE 1:4

06.07.03

**D3476-1 DUCT****D3476-1F DUCT FLAT PATTERN****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 26 GAUGE SS (0.018 THICK) (REF. DART SPEC. M304S26GA)
- 2) SPOT WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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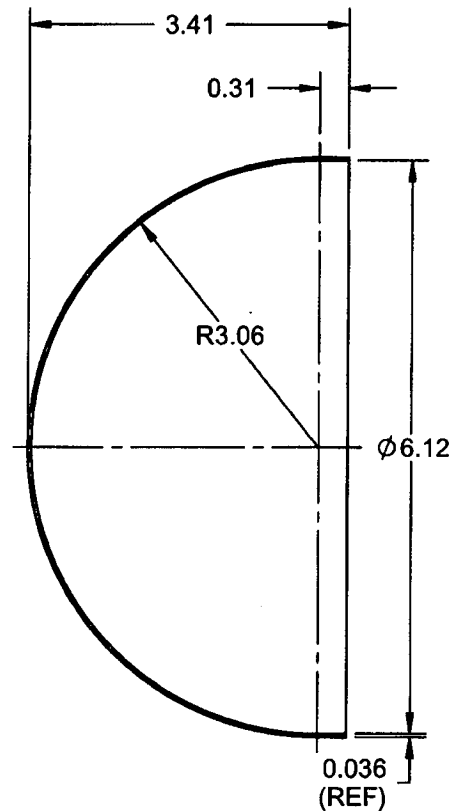
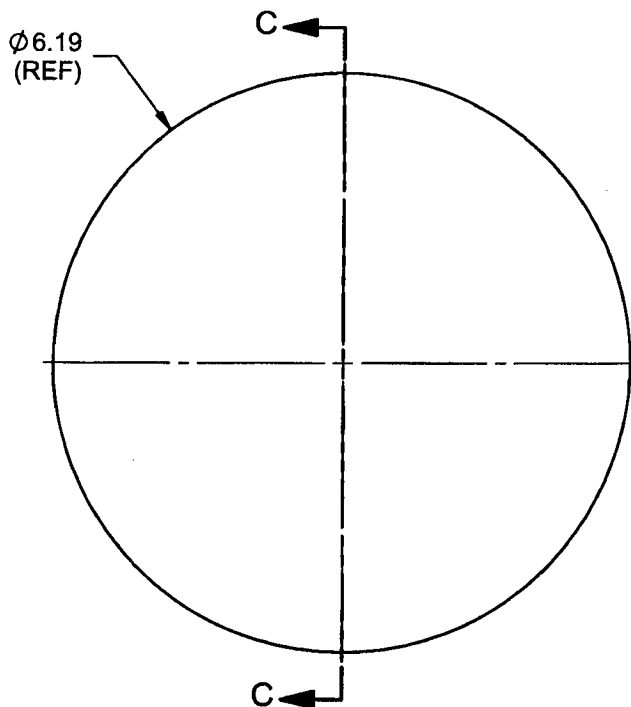
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DATE 06.01.27	TITLE BLOWER MOTOR ADAPTER SCALE 1:2		

RELEASED

06.04.03 *[Signature]***SECTION C-C****D3476-3S DOME, SPINNING DETAIL****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.036 THICK PER MIL-S-5019 (ANNEALED) 2B FINISH (REF. DART SPEC. M304S20GA)
- 2) FORM BY SPINNING TO DIMENSION WITHOUT EXCESS THINNING OF MATERIAL (MINIMUM THICKNESS = 0.025").
- 3) FINISH: NONE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

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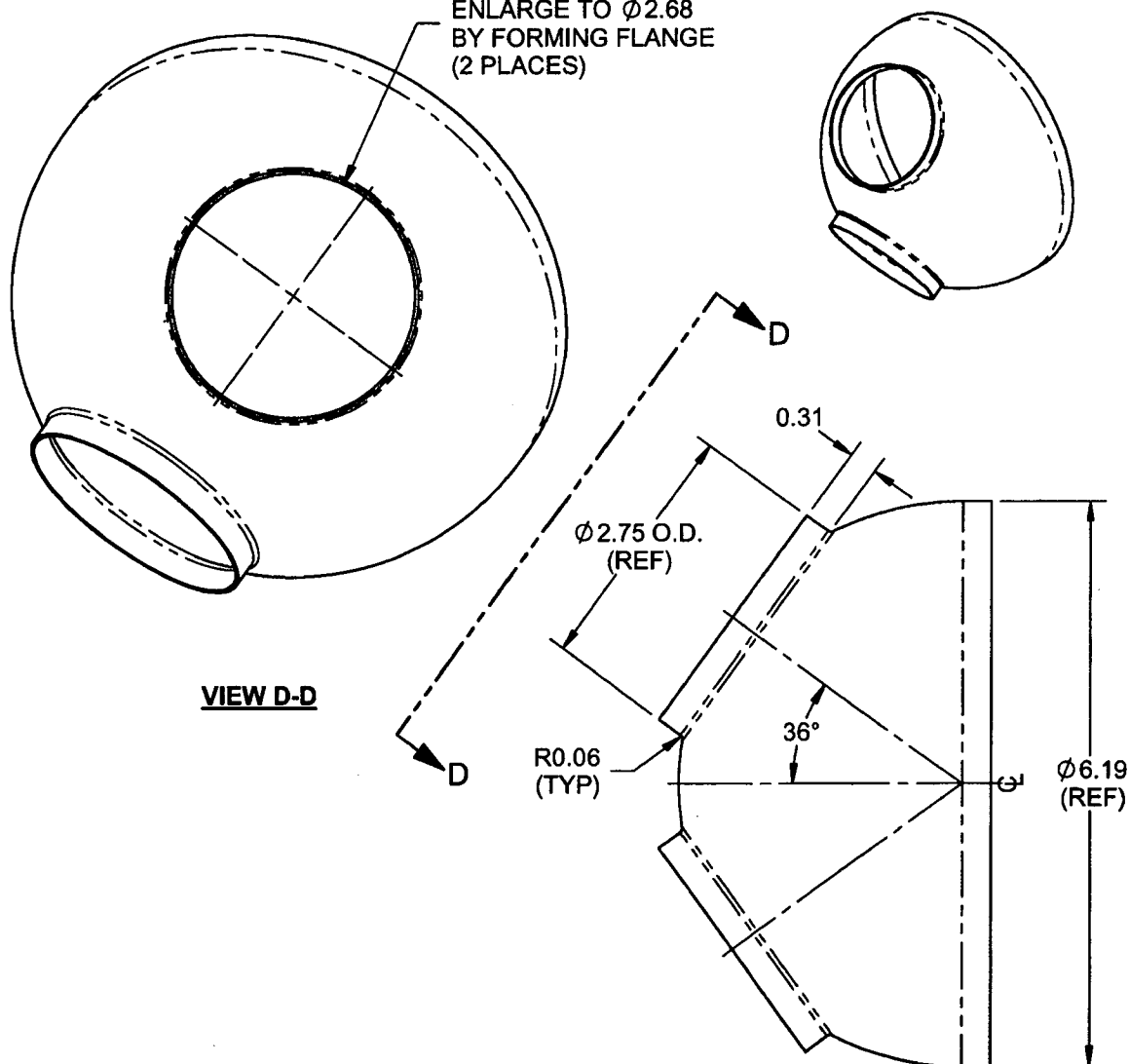
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CHECKED #	APPROVED #	DRAWING NO. D3476	REV. A SHEET 5 OF 7
DATE 06.01.27		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2

06.04.03

CUT $\phi 2.25$ HOLE,
ENLARGE TO $\phi 2.68$
BY FORMING FLANGE
(2 PLACES)

**VIEW D-D****D3476-3 DOME****NOTES:**

- 1) MATERIAL: MAKE FROM D3476-3S
- 2) FINISH: NONE
- 3) PART IS SYMMETRICAL ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

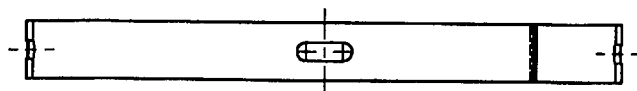
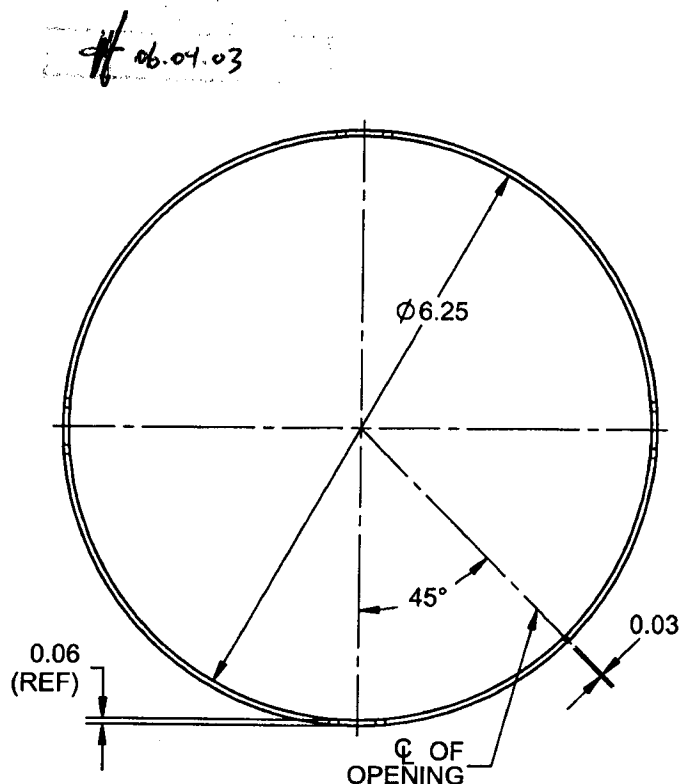
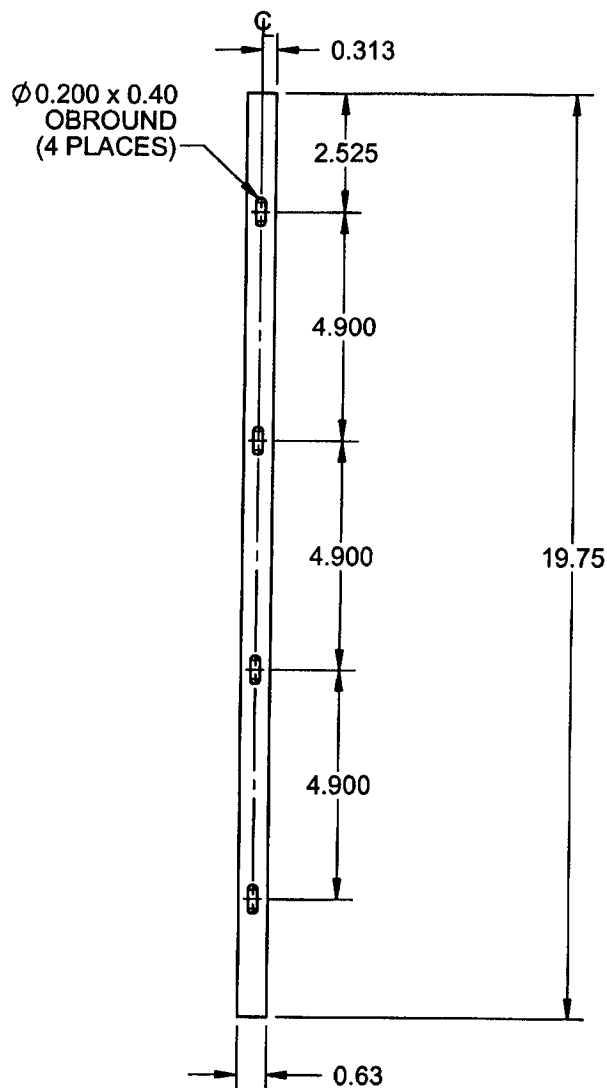
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DATE 06.01.27		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2

**D3476-5 SPACER-RING****D3476-5F SPACER-RING**
FLAT PATTERN**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.063 THICK, PER MIL-S-5019 (ANNEALED) 2B FINISH (REF. DART SPEC. M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

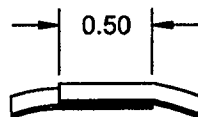
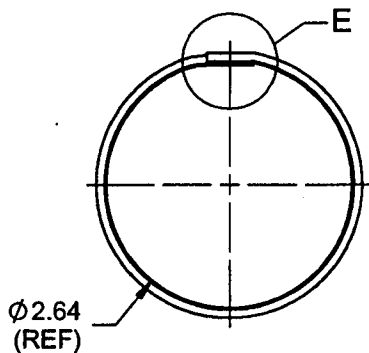
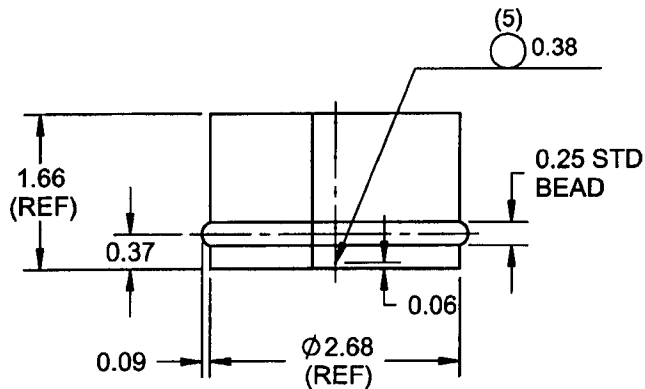
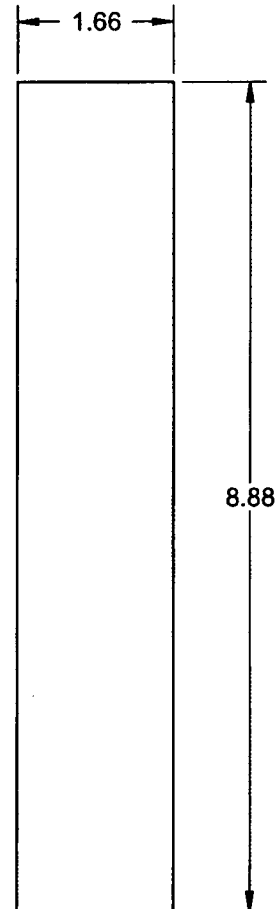
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DATE 06.01.27		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2

[Signature] 06.04.03DETAIL E
SCALE 1:1**D3476-7 TUBE****D3476-7 TUBE
FLAT PATTERN****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH
26 GAUGE SS (0.018 THICK)
(REF. DART SPEC. M304S26GA)
- 2) SPOT WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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DART AEROSPACE LTD

Work Order: 32051

Description: Duct

Part Number: D3476-1

Inspection Dwg: D3476 Rev: A

Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST



First Article



Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A 3.00	+/-0.030	2.999	✓		VERN	
B Ø 0.194	+/-0.005-0.001	0.195	✓		VERN	
C 20.00	+/-0.030	20.00	✓		measuring tape	
D 14.53	+/-0.030	14.53	✓		measuring tape	
E 0.310	+/-0.010	0.310	✓		VERN	
F 4.843	+/-0.010	4.842	✓		VERN	
G 2.75	+/-0.030	2.756	✓		VERN	
H						
I						
J						
K						
L						
M						
N						
O						
P						
Q						
R						
S						
T						
U						
V						
W						
X						
Y						

Measured by: MW. MAA

Audited by: JB

Prototype Approval:

N/A

Date: 07 04 26

Date: 07 03 02

Date:

N/A

Rev

Date

Change

New Issue

Revised by

KJ/RF

Approved

SPOT WELD TEST RECORD

AMS-W-6858A

CLASS 'C'

TEST NO: 8

EMPLOYEE: Melanie Fauter

PART NUMBER: D3476-1

JOB NUMBER: B 32051

MATERIAL TYPE: 2024 S

MATERIAL THICKNESS: 2.6

GROUP SPECIFICATION: 3

Group 1: Aluminum & magnesium

Group 2: Iron; nickel; cobalt

Group 3: Titanium

TEST RESULTS

PASS FAIL

VISUAL:

☒ ☐ ☐ ☐

PENETRATION:

☒ ☐ ☐ ☐

PULL STRENGTH:

☒ ☐ ☐ ☐

PSI Reading: _____

The individual named above has been trained and is qualified in accordance with standard AMS-W-6858A, and QSI 004 (ref: 4.3)

DATE OF TEST COUPON: 07/05/01

QUALIFIER: SB